University of Gdańsk

Subject card

Subject name and code	Application of Computers in Marine Geology - laboratory, PG_00205002		
Field of study	Oceanography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Master's studies	Subject group	Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	1	ECTS credits	5.0
Learning profile	academic	Assessment form	credit
Conducting unit	Department of Geophysics -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Dominik Pałgan	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	45.0	0.0	0.0	45

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	45	5.0	75.0	125

Subject objectives

To familiarise the student with the computer software used in marine geology and to use it skilfully

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OCEANMU2-U06] is able to use specialized computer software as well as advanced mathematical and statistical methods to analyze data and describe processes and phenomena occurring in the marine and coastal environment; evaluates their reliability and usefulness and performs critical analysis	is able to use specialised and off-the-shelf computer software and mathematical and statistical methods in the analysis of data and the description of phenomena and processes occurring on the seabed and the coastal zone (B.1-B.4)	[SU3] text preparation/written work [SU5] implementation of a problem task
[OCEANMU2-W05] knows and understands the principles of planning and conducting field and laboratory research as well as advanced methods and tools of scientific research, especially in the field of the studied specialty	has an in-depth knowledge and understanding of the techniques, research methods and computer programmes (mathematical, statistical, IT) used in planning and re-launching the investigations carried out by a marine geologist (B.1-B.4)	[SW3] text preparation/written work [SW5] implementation of a problem task

<table>
<tr><td>Subject contents</td><td>B1. Use of available oceanographic software to analyse and synthesise geological phenomena directly relevant to the bathymetry of the study area

B2. Use of available geological databases for scientific studies

B3. Production of original graphic elements in scientific studies

B4. Selection of appropriate software for scientific studies</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>Completion of assignments</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td>Recommended reading</td><td><table><tr><td>Basic literature</td><td>Urbański J (2012) GIS w badaniach przyrodniczych. University of Gdańsk, Gdańsk

M. Klischies et al., (2019), Geological mapping of the Menez Gwen segment at 37°50N on the Mid-Atlantic Ridge: Implications for accretion mechanisms and associated hydrothermal activity at slow-spreading mid-ocean ridges, Mar. Geol.</td></tr><tr><td>Supplementary literature</td><td>https://www.geomapapp.org

Ryan, W. B. F., S.M. Carbotte, J. Coplan, S. O'Hara, A. Melkonian, R. Arko, R.A. Weissel, V. Ferrini, A. Goodwillie, F. Nitsche, J. Bonczkowski, and R. Zemsky (2009), Global Multi-Resolution Topography (GMRT) synthesis data set, Geochem. Geophys. Geosyst., 10, Q03014, doi:10.1029/2008GC002332</td></tr><tr><td>eResources addresses</td><td></td></tr></table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>The use of GIS in marine geology.
The use of graphics software in marine geology.
Software for managing literature in text.</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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